



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

**North Carolina Board of Transportation
Environmental Planning and Policy Committee
Meeting Minutes for April 3, 2002**

A meeting of the Environmental Planning and Policy Committee (EPPC) was held on April 3, 2002 at 8:00 AM in the Board Room (Room 150) of the Transportation Building. Nina Szlosberg chaired the meeting. Other Board of Transportation members that attended were:

Conrad Burrell	Margaret Kluttz
Mac Campbell	Cam McRae
Doug Galyon	Nina Szlosberg
Larry Helms	Alan Thornburg
Clark Jenkins	Lanny Wilson
Frank Johnson	

Other attendees included:

Roberto Canales	Berry Jenkins	Jon Nance
Craig Deal	Neil Lassiter	Sandy Nance
Janet D'Iganzio	Don Lee	Allen Pope
Lesley Fair	Robin Little	Lubin Prevatt
C. A. Gardner	Daniel Martin	Bill Rosser
Terry Gibson	Francis M. Nevils, Jr.	Roger Sheats
Bill Gilmore	Ehren Meister	Roy Shelton
Lisa Glover	Ashley Memory	Jim Trogden
Mike Holder	Mike Mills	Steve Wall
Pat Ivey	Barry Moose	Ron Watson

Ms. Szlosberg called the meeting to order. After opening remarks, Ms. Szlosberg accepted a motion to approve the minutes as presented from the March 6, 2002 EPPC meeting. The motion was approved.

Boyd Devane, NC Department of Environment and Natural Resources' (DENR) Division of Water Quality - Water Quality Section, gave an overview of the importance of sedimentation and erosion control. Mr. Devane began by explaining that sediment is dirt that gets into streams, and turbidity is a measurement of the suspended sediment in streams. There are certain standards for turbidity for different types of water bodies – streams, lakes and trout streams. Many streams do not meet their standards, and Best Management Practices (BMP's) are employed to limit the amount of turbidity that occurs as a result of construction projects.

Sands, silts and clays are different types of sediments and have varying degrees of impacts on water bodies. When coarse sandy sediments are allowed to enter into the water, they settle out immediately and cover up the bottom of the stream and over up the natural substrate. Fine sediments, such as silts and clays, stay suspended longer (even weeks and months). Sedimentation can create biological impacts to the stream. A healthy stream has several features – a hard bottom, rocky substrate, water, trees and bushes for stabilization, woody material in the streams for bug habitat, etc. Impacts to streams due to sedimentation that covers the stream bottom include a decline in fish populations as a result of damage to gills, decreased disease resistance, and smothering of eggs. Loss of habitat and rocks in the stream also reduce the amount of bugs. If an area is adversely impacted by sedimentation, it is likely that the areas downstream will also be adversely affected (as fish populations decrease, the amount of available food for larger fish downstream also decreases). In the coastal areas, sediment can kill acres of oysters by clogging up these filter feeders.

Sediment destroys habitat in the stream, which ultimately effects the aquatic system. Layers of silt deposited in lakes that are used for water supplies can kill good algae and promote bad algae, which can cause pungent odors in drinking water, requiring additional treatment at water treatment plants. Fish do not eat when they cannot see the food, so the fish do not grow as large as they normally would, and their rates of reproduction also decrease.

Lack of vegetation on the slopes near water bodies can result in large quantities of sediment entering into streams and lakes. Seeding, placement of wheat straw, and providing ground cover on exposed slopes immediately following construction helps prevent erosion, and the North Carolina Department of Transportation (NCDOT) has been working hard to prevent sedimentation from entering water bodies. Mr. Devane complimented NCDOT for their efforts.

Mr. Bill Gilmore asked if BMP's might be challenged in the future and expressed concern that BMP's are NCDOT's means complying with the rules. Mr. Mel Nevils from DENR's Division of Land Resources – Land Quality Section stated that BMP's do a good job of controlling coarse sediments if they are installed and maintained correctly. However, they do not do a good job with the finer sediments and they enter the water and cause turbidity. Research is underway to identify effective methods of dealing with these finer sediments.

Mr. Nevils emphasized that erosion prevention is the key to preventing sedimentation – if the erosion is not allowed to occur, then you do not have to catch it and it does not get into the streams. Sediment is the number one pollutant by volume in the state. Research indicates that the amount coming from a disturbed site (under construction with vegetation removed) is likely to allow 100 times more sediment to leave the site than a completely vegetated construction site.

The Legislature passed the Sedimentation Pollution Control Act in 1973. The Act is performance oriented, meaning that while there are guides of preferred practices for controlling sedimentation, any device is permitted as long as it achieves the goal of limiting sediment from reaching streams. The North Carolina Sedimentation Control Commission has the ability to establish the program and DENR's Division of Land Resources staff the commission. They set the rules and policies that carry out the Act and delegate the sedimentation and erosion control programs to other entities. Members include representatives from:

- NC League of Municipalities and the NC Association of County Commissioners
- NC Home Builders Association
- Carolinas Branch, Associated General Contractors of America
- NC Public Utilities Company
- Water Resources Research Institute Director

- Mining Commission
- Soil and Water Conservation Commission
- Environmental Management Commission
- NCSU Soil Science faculty member
- Non-governmental representatives for conservation interest
- Professional Engineer of NC

Mr. Nevils explained that a “land-disturbing activity” triggers the Sedimentation and Erosion Control Act.

A “land-disturbing activity” means any use of the land by any person in residential, industrial, educational, institutional or commercial development, highway and road construction and maintenance that results in a change in the natural cover or topography and that may cause or contribute to sedimentation. The Act includes several mandatory standards, which include:

- Buffer zones along watercourses sufficient to control visible siltation within the first 25% of the buffer zone closest to the land disturbing activity.
- Land disturbing activities of an acre or more must have an erosion and sedimentation control plan approved by the Land Quality Section.
- Stabilize exposed slopes within 15 working days or 30 calendar days after any phase of grading, whichever is shorter.
- Land disturbing activities shall install erosion and sedimentation control devices and practices sufficient to retain sediment on site, and provide permanent ground cover within 15 working days or 90 calendar days, whichever is shorter.

Delegation of the Sedimentation and Erosion Control Program was originally delegated to NCDOT in 1974, and the program was updated with some revisions and re-delegation to NCDOT in 1991. This delegation gives NCDOT’s Division of Highways the authority to review their own erosion and sediment control plans. Without delegation of the program to NCDOT, the DENR’s Land Quality Section would have to shut down because they do not have the capacity to review the high number of roadway plans generated by NCDOT. Mr. Nevils stated that this has been a good partnership between DENR and NCDOT and that NCDOT has become a leader in the nation with regard to this program.

A question was asked about how the Erosion and Sedimentation Act applies to clearing of forested land (and example was given about 50 acres in Iredell County). Mr. Nevils said that forested land, which was previously exempt from the Act, currently falls under a qualified exemption. He suggested that two entities could provide additional information – the County Forester or the Mooresville Regional Office of the Land Quality Section.

Mr. Clark Jenkins asked why some debris (about 10%) from the Hurricane Floyd floods were required by the federal government to be left in streams and rivers if this debris is harmful and creates sediment problems downstream. Mr. Jenkins suggested that the debris should be removed so that the pre-flood conditions were achieved. Mr. Nevils stated that their unit was not involved in the river clean-ups from Hurricane Floyd and, per suggestion of Mr. Jenkins, Mr. Nevils offered to look into the issue.

Mr. Jenkins asked if any studies had been conducted or data collected in the eastern part of North Carolina with regard to the runoff from highly erodible land and farming practices (farming and agricultural land) and how that has affected retainage of sediment on the land. Mr. Nevils responded that the Department of Agriculture has been conducting

studies and their results show that there has been a reduction in the amount of sediment coming from farmland as a result of those farming practices. Mr. Jenkins inquired as to why the Division of Land Quality is not more involved and informed of the sedimentation and erosion control activities associated with forestry, floods and cleaning out rivers, and farming practices. Mr. Nevils responded that certain activities are exempt from the Sedimentation and Erosion Control Act, including agriculture. The Division of Land Quality does work with the Division of Soil and Water at the Department of Agriculture to coordinate activities, but they do not have authority over them.

Mr. Nevils was asked to comment on whether he supports the theory that the rivers in the eastern part of the state (like the Neuse River) are now shallower after the floods associated with Hurricane Floyd. Mr. Nevils has not done any analysis of this. This type of research is very difficult and expensive to do.

Don Lee, State Roadside Environmental Engineer of NCDOT's Roadside Environmental Unit, provided information about NCDOT's delegated Sedimentation and Erosion Control Program. Mr. Lee acknowledged several of the people in attendance at the meeting who were instrumental in the development of this program at NCDOT, including Berry Jenkins, C. A. Gardner, Craig Deal, Steve DeWitt, Don Goins, Len Sanderson and Mel Nevils. The re-delegation provided for all highway projects under NCDOT control, but does not cover encroachments.

Mr. Lee explained the benefits of this environmental delegated program. Under the program NCDOT assumes ownership and liability to approve plans and to self-monitor. NCDOT has trained its employees to consider erosion control as routine and a mandatory part of job responsibility and duties. This enables the Division Engineer's to schedule and perform work without lengthy permitting delays.

To provide a perspective on the delegated program, the number of plans prepared in FY 00-01 was 931, including 120 plans for TIP projects and 811 for maintenance and force account projects. It is estimated the areas of disturbance for which plans were prepared was 7800 for TIP construction and 4450 for maintenance and force account projects. Mr. Lee noted that NCDOT is the largest developer in North Carolina.

NCDOT monitors itself for sedimentation and erosion control compliance. An internal staff of inspector visit project sites once a month for normal projects and twice a month for projects located in or near sensitive waters. This past fiscal year, NCDOT conducted 3786 inspections and issued 7 immediate corrective actions (ICA's) on maintenance and force account projects. (ICA's are issued by NCDOT staff when an internal inspection shows that a project has problems with sedimentation and erosion control.) About 1825 inspections and 35 ICA's were issued in FY 00-01 for TIP projects.

Notices of Violation (NOV's) are issued when DENR finds that the sedimentation and erosion control requirements are not being met. NCDOT takes NOV's very seriously, and they carry a civil penalty. Mr. Lee reviewed the trends in the ICA's and NOV's, noting that NCDOT's goal is to have no NOV's.

Some of the challenges NCDOT faces include the fact that employing the current BMP's do not necessarily mean that the water quality will not be affected. NCDOT is participating in research to improve our erosion control methods so that overall water quality can be improved. Turbidity is also an area where improvement is needed. Mr. Lee showed examples of innovative solutions that are being tested to address this issue.

Mr. Lee briefly reviewed the permitting process and showed that the delegated program, in conjunction with other permitting process improvements underway, has shortened the overall permitting process.

Mr. Jenkins asked if there was a way to remove the clay out of the water more quickly. Mr. Lee responded that this might be possible to accomplish in the future, including the use of chemicals. However, the downstream effect of the chemicals (pH problems) must also be considered and addressed.

Lisa Glover, Assistant Attorney General, updated the committee on the State Minimum Criteria permanent-making process. NCDOT has conducted an additional step in the permanent rule-making process by sending the proposed rules to the State Clearinghouse. In January, NCDOT met with the State Clearinghouse and DENR to discuss DENR's concerns with the rules. After several meetings and correspondence, revised proposed permanent rules that included revisions as requested by DENR were submitted to the State Clearinghouse in March 2002. Copies of the revised rules, as submitted to State Clearinghouse, were provided to the committee. The proposed State Minimum Criteria were sent out for a 30-day public comment period, and the period lasts until April 21, 2002. A memo about the State Minimum Criteria was also sent out in late March to people on NCDOT's rule-making list and about 50 other entities who are thought to have an interest in proposed rules. After comments are received, NCDOT will meet with the State Clearinghouse to discuss the comments received. If not changes to the proposed rules are made, then the State Clearinghouse will have to decide to approve or reject the criteria. If the criteria is approved, then the criteria will be brought back to the Board of Transportation with the request by staff to begin the permanent rule-making process with the criteria that the State Clearinghouse has approved. The permanent rule-making will involve public hearings and review and approval of the criteria by the Rules Review Commission. The best possible scenario is that permanent rules could be in place as early as April 2003. Until such time, the temporary rules for state minimum criteria, as recently adopted by the Board of Transportation, will be used. Ms. Szlosberg thanked Ms. Glover for expanding the distribution list for people to comment on the State Minimum Criteria as part of the recent request for public input.

Mr. Bill Gilmore, Manager of the Project Development and Environmental Analysis Branch, gave an update on the permitting and mitigation process improvement efforts. The objective of these undertakings is to streamline the permit and mitigation processes to ensure timely project delivery while at the same time providing quality mitigation for our impacts. The permit process improvement includes 26 different components or action items. Ten teams are currently working on the ten most critical action items. We are currently into the fifth month of the implementation phase. The mitigation process improvement, which is about two months into development, includes an Ecosystem Enhancement Program (EEP). The EEP is a comprehensive mitigation program that looks at functional replacement as opposed to in-kind replacement of wetlands. This program is endorsed by the resource agencies, which participated in developing the EEP concept. These are two key components: (1) functional assessment methodology that describes how project impacts would be replaced and (2) watershed needs assessment methodology to identify the needs of each watershed to target mitigation to address these needs. The EEP would include the current 3-prong approach to mitigation, including in-house mitigation development, use of the private sector and partnership with DENR. The objective is to get ahead of the curve with mitigation and have mitigation in the ground prior to impacts being realized.

The next meeting for the Environmental Planning and Policy Committee is scheduled for Wednesday, May 1, 2002 at 8:00 AM in the Board Room (Room 150) of the Transportation Building.

NS/jh